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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER	
HOM, S	
ART UNIT	**PAPER NUMBER**
2732	6

DATE MAILED: 08/01/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/065156	Gazit
Examiner	**Group Art Unit**
S. Hom	2732

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 4.4.98, 11.30.98, 10.12.99 & 1.31.00

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-82 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-82 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4,5

☒ Notice of References Cited, PTO-892

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The abstract of the disclosure is objected to because in lines 6 and 7 which recite "GOP" and "PCR," the acronyms must be spelled out the first time it is used, for clarity, e.g. ---Group of Pictures GOP---, and ---peak cell rate PCR---, for clarity. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 5-15, 17-19, 21-23, 25-45, 48-50, 52-53, 57-62, 64-65, 68-70, 72-77, and 80-81 are objected to because of the following informalities: In claims 5-15, 17-19, 21-23, 25-45, 52-53, 57-62, 64, 66, 68-70, and 72-77 line 1 delete "A method" and insert ---The method---, because they're reciting the method of the base claim. In claims 48-50 and 80-81 line 1 delete "A computer-readable" and "An apparatus" and insert ---The computer-

readable--- and ---The apparatus---, respectively. In claim 7 line 1 delete "said maximum" and insert ---the maximum---. In claims 9 and 10 line 2 delete "said buffer" and insert ---said decoder buffer--. In claim 27 line 5 and claim 60 line 2 delete "("DTS")" and insert ---DTS---. In claim 33 line 3, claim 52 line 2, claim 55 line 3, claim 56 line 4, claim 59 line 2, claim 60 line 3 delete "("GOP")" and insert ---GOP---. In claim 65 line 1 spell out acronym GOP and line 4 spell out acronym DTS the first time it is used for clarity. In claim 5 line 1 delete "said step" and insert ---the step---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-2, 4-23, 28, 29, 31-34, 40, 41, 45, 46, 49-62, 64, 66, 68-70, and 72-81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 2 lines 2-3 which recite "an overflow condition" is not clear as to whether they're reciting ---said overflow condition--- as in claims 1 and 2 line 1. In claim 2

line 4 which recite "said data stream" is not clear as to whether it is reciting ---said first data stream---. In claim 4 line 8 which recite "a portion" is not clear as to whether it is reciting ---said portion--- as in claim 4 line 1. In claim 4 line 9 which recite ---said portion--- is not clear as to whether it is reciting ---said portion of new data--- or ---said portion of old data---. In claim 8 line 3 which recite "said decoder" lacks clear antecedent basis because no decoder have been previously recited in the claims and therefore the limitation is not clearly understood. In claim 16 line 9 which recite "a plurality of old data" is not clear as to whether it is reciting ---said plurality of old data--- as in claim 16 line 3. In claim 19 line 2 which recite step "I" is not clear as to where is step ---(h)---. In claim 19 lines 2-3 and claim 20 line 3-4 which recite "a portion of new data stream data" is not clear as to whether it is reciting ---said new data stream portion--- or what. In claim 22 lines 2 and 3 which recite "said portion" is not clear as to whether it is reciting ---said old data stream portion--- or ---said new data stream portion---. In claim 22 line 3 which recite the index of n and m is not clear as to what are the ranges of values for n and m. In claims 28 and 29 lines 2 and 3 which recite "a portion of the new data" and "a portion of the old data" are not clear as to whether they're reciting ---

said portion of the new data--- and ---said portion of the old data---, respectively. In claim 31 lines 2 and 3 which recite "a splice-out" and "a splice-in" are not clear as to whether they're reciting ---said splice-out--- and ---said splice-in---, respectively. In claim 33 line 2 which recite "said step of modifying" lacks clear antecedent basis. In claim 40 line 1 which recite "said sources" lack clear antecedent basis. In claim 45 line 1 which recite "a portion" is not clear as to whether it is reciting ---said portion--- as in claim 24 line 6. In claim 46 lines 1-2 which recite "an old data stream" and "a new data stream" are not clear as to whether they're reciting ---said old data stream--- and ---said new data stream--- as in claim 24 lines 1 and 2, respectively. In claim 49 lines 3 and 5 which recite "said data streams" lack clear antecedent basis. In claim 51 lines 5, 14, and 17 which recite "an old data stream portion" and "a portion of the old dta stream" are not clear as to whether they're reciting ---said portion of the old data stream--- as in claim 51 line 3-4. In claim 54 lines 3 and 4 which recite "an old data stream" and "a new data stream" are not clear as to whether they're reciting ---said old data stream--- and ---said new data stream--- as in claim 51 lines 1 and 1-2. In claim 55 lines 2-4 which recite "the new data stream" lacks clear antecedent basis. In claim 56 line 5 which recite "an open

GOP" is not clear as to whether it is reciting ---said open GOP--- as in claim 56 line 4. In claims 58 and 59 line 1 which recite "a splice-out" is not clear as to whether it is reciting ---said splice-out--- as in claim 51 line 4. In claim 60 line 1 which recite "a splice-in" is not clear as to whether it is reciting ---said splice-in--- as in claim 51 line 10. In claim 60 lines 2, 4, and 5 which recite "said frame" is not clear whether it is reciting the frame of claim 51 line 11 or the initial frame of lines 10-11 or what. In claim 61 line 1 which recite "an initial frame" is not clear as to whether it is reciting ---said initial frame--- of claim 51 lines 10-11. In claim 64 line 1 which recite "a frame" is not clear as to whether it is reciting ---said decodable frame--- or ---said first frame--- or what. In claim 66 line 1 which recite "said GOP" lacks clear antecedent basis. In claims 68 and 69 line 1 which recite "said step of finding" lack clear antecedent basis. In claim 72 lines 1 and 2 and claim 75 line 1 which recite "said step of setting" and "said data streams" lack clear antecedent basis. In claim 74 line 2 which recite "said inserting" lacks clear antecedent basis. In claims 74 and 77 line 2 which recite "a decoder" is not clear as to whether it is reciting ---said decoder--- of claim 72 line 3 and claim 75 line 2, respectively. In claim 78 lines 9, 13, and 15-16 which recite "the real-time transmit time" lack clear

antecedent basis. In claim 79 line 5 which recite "an amount" is not clear as to whether it is reciting ---said amount--- as in claim 79 line 2. In claim 80 line 1 which recite "said new data stream data" lacks clear antecedent basis.

Claims 5-7, 9-15, 17-18, 21, 23, 25-27, 30, 32, 34-39, 41-43, 50, 53, 57, 62, 70, 73, 76, and 81 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claims 4, 16, 20, 24, 49, 51, 68, 72, 75, and 80.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2, 4-15, 20-25, 27-31, 34-39, 42-47, 49-50, 54-56, 63-77, and 79-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radha et al. in view of Porter et al.

Radha et al. disclose nearly all the subject matter now claimed. Note col. 4 lines 9-16 which recite the method for

encoding digital video bit streams with seamless splice points including the step of splicing a first digital video bit stream at an Out Point into a second digital video bit stream at an In Point having the steps of measuring and computing the difference W equal to delay time between data streams and waiting an amount of time equal to W, and then switching into the In Point clearly anticipate the method for aligning the splice-out portion of the encoded old data stream with the splice-in portion of the new data stream including the step of finding a new data stream transmit time as in claims 20, 24, 31, 34-39, 42, 44-46, 67, 71, 72, 75, the digitally encoded data stream as in claim 82, and the means and steps of determining splice-in point of the new data stream as in claims 47, 54-56. Col. 7 lines 22-24 which recite waiting an amount of time equal to W before switching into the seamless In Point whereby the splicer sends NULL packets for the duration of W clearly anticipate the step of adding null packets to the data stream portion as in claims 21, 73-74, 76-77, the timing gap as in claim 25, and means for delay by an amount an amount determined by the shifting means as in claims 79-81. Col. 1 lines 37-52 which recite the decoder buffer and col 1 lines 61-63 which recite the step of preventing the decoder buffer overflow clearly anticipate the decoder buffer containing portion of new data stream and portion of old data stream as in claims 4,

16; the data storage structure as claims 49, 50; and the means and step of delaying the data stream for a delay time to prevent the overflow condition as in claims 1, 2, 4-15, and 30.

Radha et al. did not recite the transmit time being real time as in claims 43, 67, and 69. Radha et al. did not recite the use of a decode time stamp DTS of the frame for determining the real-time transmit time and the step of determining the program clock reference PCR as in claims 27 and 68; the step of setting the start of receipt time and the decoding time as in claims 28, 29, 71, 79-82 and the inter-frame delay equals 1001/30,000 seconds as in claim 70. Radha et al. did not recite the formula for re-scheduling transmission whereby the indicated number of bits in a packet of data stream is equal to 1504 as in claims 22 and 23 and the means for scheduling as in claim 82. Radha et al. did not recite the step of causing playback portion beginning with the independently decodable frame by deleting frame within portion proceeding decodable frame as in claims 63-64, and 66. Radha et al. did not recite the I-frame, determining the largest decode time stamp DTS of all the frames proceeding the I-frame, and replacing DTS of the I-frame with the largest DTS as in claim 65.

Porter et al. teach that it is known to provide real-time MPEG feeds whereby tag file generation is performed in real-time

during receipt of the MPEG data stream as set forth at col. 7 lines 26-37 in the field of information processing system organization for the purpose of providing a digital video editor in a digital video delivery system which maintains compliance with data stream format expected by the decoder which clearly anticipate the transmit time being real time as in claims 43, 67, and 69. Col. 14 line 60 to col. 15 line 5 which recite each packet having an associated time stamp whereby the time stamps of packets are sequentially located within MPEG file and during playback operations, the client tracks the time stamps to determine the integrity of the MPEG data stream clearly anticipate the use of a decode time stamp DTS of the frame for determining the real-time transmit time as in claims 27, 68 and the step of setting the start of receipt time and the decoding time as in claims 28, 29, 71, 79-82; further col. 17 lines 21-56 which recite the time window for sending the frame at issue to be (1 second)/10 or 0.1 seconds which clearly anticipate the inter-frame delay equals 1001/30,000 seconds as in claim 70. Col. 15 lines 38-41 which recite the use of the "Program Clock Reference" PCR clearly anticipate the step of determining the program clock reference PCR as in claim 68. Col. 12 lines 29-44 which recite the stream server determining the time window available to send the data for the frame at issue including the

step of determining the current "bit budget" by multiplying the time window by the data transfer rate of the channel through which the MPEG data stream being sent to the client whereby if the applicable data transfer rate is 2 Megabits per second and the time window is 0.1 seconds, then the current bit budget is 200K bits and if the size of the frame at issue exceeds the current bit budget, then the frame at issue is not selected, for example, if the size of the frame data for the frame at issue is 50K bytes (400K bits) and the bit budget is 200K bits; otherwise, if the frame at issue falls within the bit budget, then the frame at issue is selected to be sent clearly anticipate the formula for re-scheduling transmission whereby the indicated number of bits in a packet of data stream is equal to 1504 as in claims 22 and 23. Col. 22 lines 35-54 which recite the time stamp inserted before each frame being tagged as MPEG "private data packets" whereby during playback when a client receives a private data packet, it determines whether it recognizes the data in the packet and clients that do not support private data time stamps simply discard the private data packets containing the time stamps clearly anticipate the step of causing playback portion beginning with the independently decodable frame by deleting frame within portion proceeding decodable frame as in claims 63-

64, and 66. Col. 15 line 66 to col. 16 line 21 which recite that to avoid buffer overflow, the stream server inserts data into the prefix data that will cause the arrival of the second large I-frame to the decoder buffer to be delayed whereby the second I-frame is delayed by placing a delayed time stamp in transport packet header portion of the prefix data clearly anticipate the I-frame, determining the largest decode time stamp DTS of all the frames proceeding the I-frame, and replacing DTS of the I-frame with the largest DTS as in claim 65.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide real time transmission, the use of a decode time stamp DTS of the frame for determining the real-time transmit time, the inter-frame delay equals 1001/30,000 seconds, use formula for re-scheduling transmission whereby the indicated number of bits in a packet of data stream is equal to 1504, the means for scheduling, the step of causing playback portion beginning with the independently decodable frame by deleting frame within portion proceeding decodable frame, the I-frame, determining the largest decode time stamp DTS of all the frames proceeding the I-frame, and replacing DTS of the I-frame with the largest DTS as taught by Porter et al. to the system of Radha et al. because Porter et al. teach the desirable advantage of providing a digital video editor in a

digital video delivery system which maintains compliance with data stream format expected by the decoder so that new video files created are created without the need to perform additional analog-to-digital encoding and said method without need to perform additional analog-to-digital encoding being desirable to achieve more efficient system operation in Radha et al.

Allowable Subject Matter

7. Claims 16-19, 51-53, 57-62, and 78 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. Claims 26, 32-33, 40-41 and 48 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Chen et al. disclose splicing compressed packetized digital video streams.

Ward et al. disclose a command and control architecture for a digital studio.

Picco et al. disclose a system and method for inserting local content into programming content.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-5403, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist (703) 305-4700).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4750.

DANG TON
PRIMARY EXAMINER

SH

July 20, 2000